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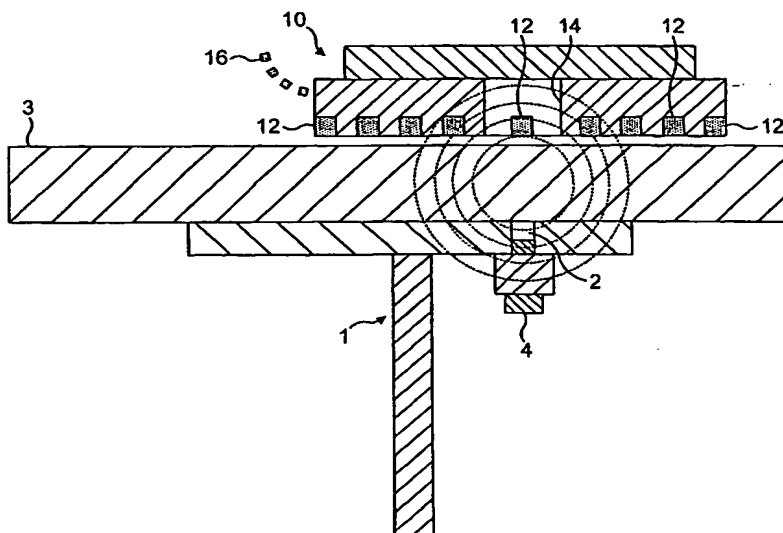
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(54) Title: METHOD AND APPARATUS FOR LOCATING NON-VISIBLE OBJECTS



(57) **Abstract:** Non-visible objects which differ in their physical properties from their surroundings by association with a variable strength magnetic field may be detected by a suitable array of Hall effect sensors which can be moved relative to the object in question. By analysing the signals from the plurality of the sensors in the array, the position of the object can be deduced relative to the array and the array moved to enable a machining guide thereon to be aligned with the non-visible object. The system is of particular value in locating apertures (2) in wing spars (1) when attempting to fix the skin (3) of the wing on to them where it is important to be able to locate the correct point at which to drill a hole through the skin (3) to coincide with the hole (2) in the spar. By locating a magnet (4) relative to the hole to identify the hole magnetically and using an array of Hall sensors (12) in a base with an aperture (14), it is possible to shift the array (10) so that the aperture (14) is precisely aligned with the non-visible hole (2).



WO 2004/016380 A1